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(54) Title: METHOD AND APPARATUS FOR PURIFYING INORGANIC HALIDES AND OXYHALIDES USING ZEOLITES

(57) Abstract: The present invention is directed to methods and apparatus for purifying inorganic halides and/or oxyhalides. In one embodiment, the method of the present invention includes contacting an inorganic halide or oxyhalide feed liquid with a zeolite to produce a purified inorganic halide or oxyhalide liquid. In one embodiment, the zeolite is a type-Y zeolite in a hydrogen form. In another aspect, the present invention includes an apparatus for purifying an inorganic halide or oxyhalide. The apparatus comprises: (a) a liquid filtration housing including a liquid inlet and a liquid outlet; and (b) a type-Y zeolite in a hydrogen form. Molecular and/or ionic impurities can be removed from the feed liquid using a filtration media that includes a zeolite. In a preferred embodiment, both molecular and ionic impurities are removed from the feed liquid using filtration media that includes a zeolite.